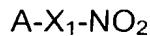


WHAT IS CLAIMED:

1. A method for treatment of gastrointestinal tumors by administering compounds, having the formula:



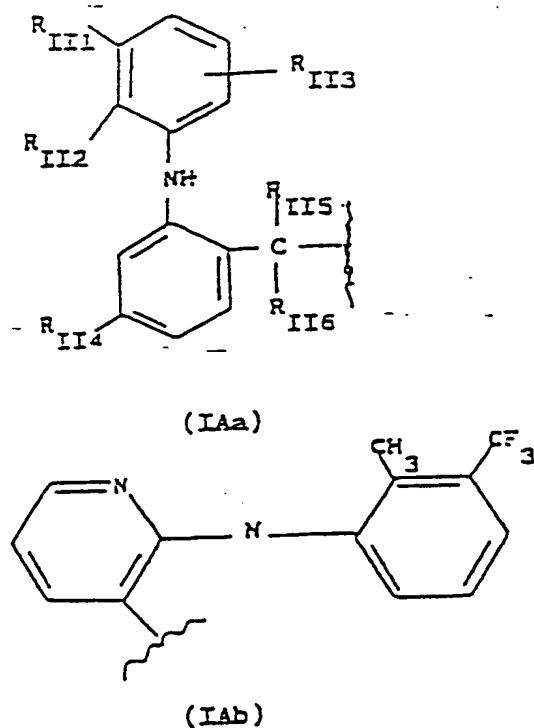
or their salts, where:

A = R(COX)<sub>t</sub> wherein t is an integer 0 or 1;

X = O, NH, NR<sub>1C</sub> wherein R<sub>1C</sub> is a linear or branched alkyl having from 1 to 10 C atoms;

R is chosen from the following groups:

Group I A), where t = 1,



where:

$R_{II5}$  is H, a linear C<sub>1</sub>-C<sub>3</sub> alkyl, or a branched C<sub>1</sub>-C<sub>3</sub> alkyl;

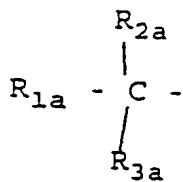
$R_{II6}$  has the same structure as  $R_{II5}$ ,

$R_{II1}$ ,  $R_{II2}$  and  $R_{II3}$  are each hydrogen, linear C<sub>1</sub>-C<sub>6</sub> alkyl, branched C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, Cl, F, or Br;

$R_{II4}$  has the same structure as  $R_{II1}$  or is bromine;

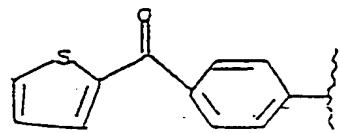
Group II A) chosen from the following:

where, when  $t = 1$ , R is

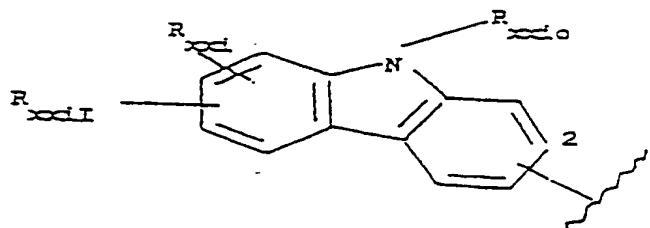


where  $R_{2a}$  and  $R_{3a}$  are H, a linear C<sub>1</sub>-C<sub>12</sub> alkyl, a branched C<sub>1</sub>-C<sub>12</sub> alkyl, or allyl, with the proviso that when one of the two is allyl the other is H;

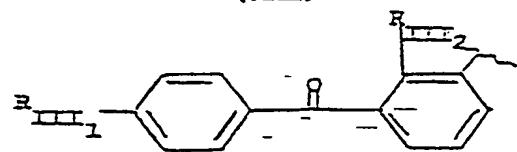
$R_{1a}$  is chosen from the subgroup II Aa) consisting of



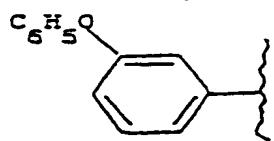
(III)



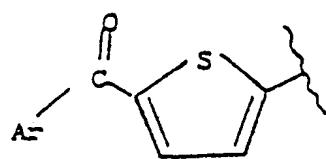
(XXI)



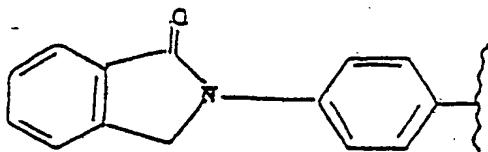
(IV)



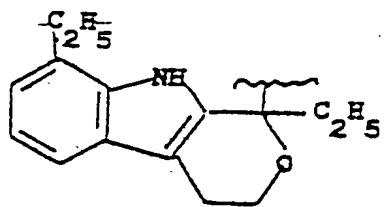
(VII)



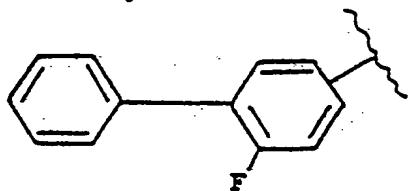
(XXXV)



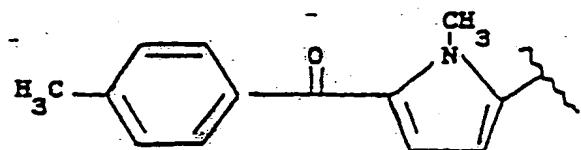
(VI)



(VIII)

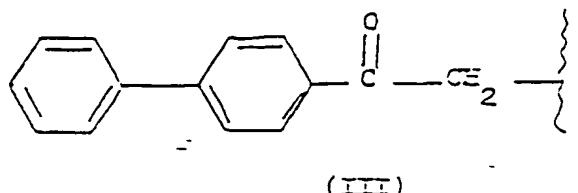


(IX)



(X)

, and



wherein:

in the residue of formula (IV):

$R_{III1}$  is H or  $SR_{III3}$  where  $R_{III3}$  contains from 1 to 4 linear or branched C atoms; and

$R_{III2}$  is H or hydroxy;

in the residue of formula (XXI):

$R_{xxio}$  is H, a linear alkyl having 1-6 carbon atoms, a branched alkyl having from 1 to 6 carbon atoms, a  $C_1-C_6$  alkoxy-carbonyl bound to a  $C_1-C_6$  carboxyalkyl, or a  $C_1-C_6$  alkanoyl, optionally substituted with halogen, benzyl or halobenzyl, benzoyl or halobenzoyl;

$R_{xxi}$  is H, halogen, hydroxy, CN, a  $C_1-C_6$  alkyl optionally containing OH groups, a  $C_1-C_6$  alkoxy, acetyl, benzyloxy,  $SR_{xxi2}$  where  $R_{xxi2}$  is a  $C_1-C_6$  alkyl; a perfluoroalkyl having a 1-3 C atoms, a  $C_1-C_6$  carboxyalkyl optionally containing OH groups,  $NO_2$ , sulphamoyl, dialkyl sulphamoyl with the alkyl having from 1 to 6 C atoms, or difluoroalkylsulphonyl with the alkyl having from 1 to 3 C atoms;

$R_{xxii}$  is halogen, CN, a  $C_1-C_6$  alkyl optionally containing one or more OH groups, a  $C_1-C_6$  alkoxy, acetyl, acetamido, or benzyloxy,  $SR_{III3}$  is as above defined, a perfluoroalkyl having from 1 to 3 C atoms, hydroxy, a carboxyalkyl having from 1 to 6 C atoms, hydroxy, a carboxyalkyl having from 1 to 6 C atoms,  $NO_2$ , amino, mono- or dialkylamino having from 1 to 6 C atoms,

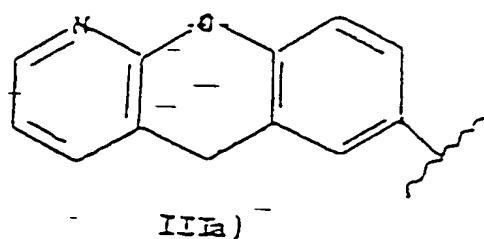
sulphamoyl, a dialkyl sulphamoyl having from 1 to 6 C atoms, difluoroalkylsulphamoyl; or R<sub>xxi</sub> together with R<sub>xxii</sub> is an alkylene dioxy having from 1 to 6 C atoms;

In the residue of formula (XXXV):

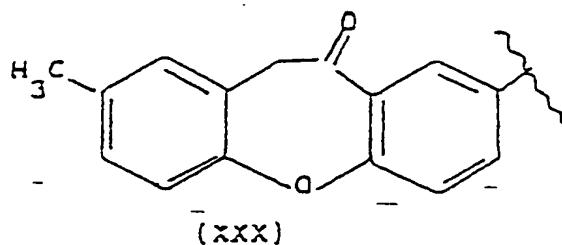
Ar is phenyl, hydroxyphenyl optionally mono- or polysubstituted with halogen, an alkanoyl or alkoxy having from 1 to 6 C atoms, a trialalkyl having from 1-6 C atoms, cyclopentyl o-hexyl o-heptyl, thiienyl, furyl, furyl containing OH, or pyridyl;

Subgroup II Ab) consisting of:

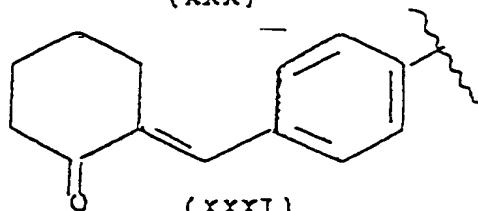
II Ab) :



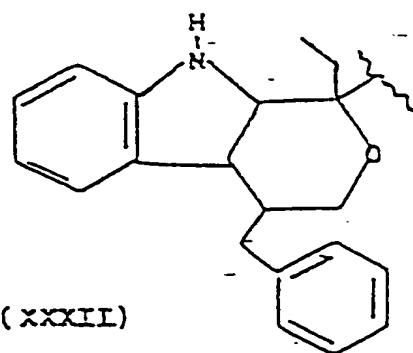
IIIa)



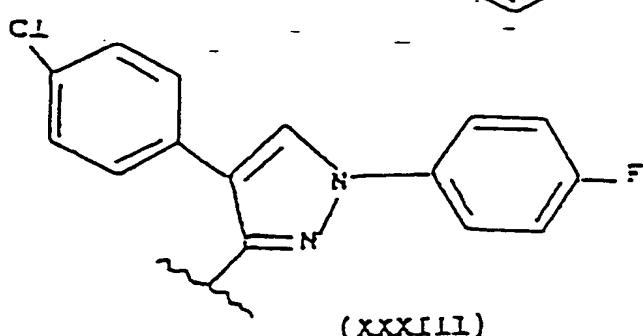
(xxx)



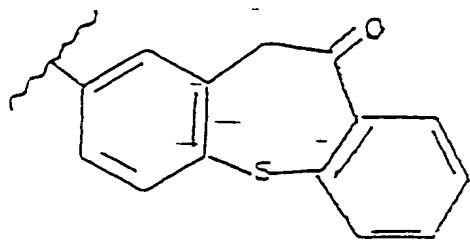
(xxxI)



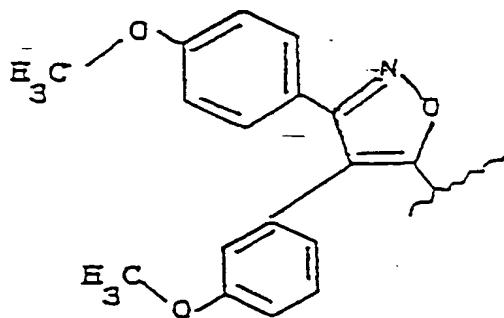
(xxxII)



(xxxIII)



(XXXVI)



(XXXVII)

wherein:

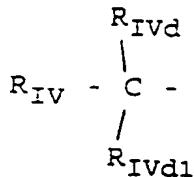
when IIIa) contains  $-\text{CH}(\text{CH}_3)\text{-COOH}$  it is known as pranoprofen:  $\alpha$ -methyl-5H-(1) benzopyran (2,3-b) pyridine-7-acetic acid;

when residue (XXX) contains  $-\text{CH}(\text{CH}_3)\text{-COOH}$  it is known as bermoprofen: dibenz (b,f) oxepin-2-acetic acid;

residue (XXXI) is known as CS-670: 2-(4-2(2-oxo-1-cyclohexylidenemethyl) phenyl) propionic acid, when the radical is  $-\text{CH}(\text{CH}_3)\text{-COOH}$ ;

when residue (XXXII) contains group -CH<sub>2</sub>COOH it is known as pemedolac;  
when residue (XXXIII) is saturated with -CH<sub>2</sub>COOH it is known as pyrazolac: 4-(4-chlorophenyl)-1-(4-fluorophenyl) 3-pyrazolyl acid derivatives; when residue (XXXVI) is saturated with -CH(CH<sub>3</sub>)-COO- it is known as zaltoprofen;

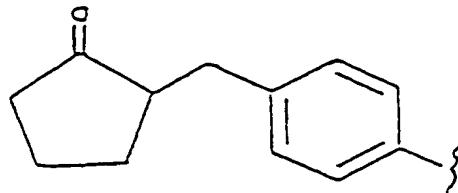
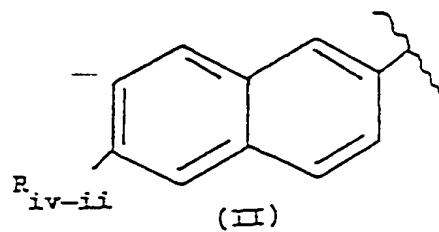
when residue (XXXVII) is CH<sub>2</sub>-COOH it derives from the known mofezolac: 3,4-di p-methoxyphenyl) isoxazol-5-acetic acid; Group IIIA), where t = 1,



wherein:

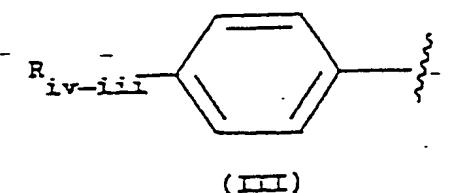
at least one of R<sub>IVd</sub> and R<sub>IVd1</sub> is H and the other a linear or branched C<sub>1</sub>-C<sub>6</sub> alkyl, or difluoroalkyl with the alkyl having from 1-6 C atoms, or R<sub>IVd</sub> and R<sub>IVd1</sub> jointly form a methylene group;

R<sub>IV</sub> has the following structure:



, or

(X)



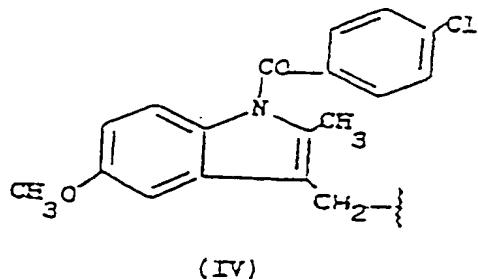
where:

in the residue of formula (II):

$R_{IV-II}$  is selected from the group consisting of an alkyl having from 1 to 6 C atoms, a cycloalkyl having from 3 to 7 C atoms, an alkoxymethyl having from 1 to 7 C atoms, a trifluoroalkyl having from 1 to 3 C atoms, vinyl, ethynyl, halogen, an alkoxy having from 1 to 6 C atoms, a difluoroalkoxy with the alkyl having from 1 to 7 C atoms, an alkoxymethyloxy having from 1 to 7 C atoms, an alkylthiomethyloxy with the alkyl having from 1 to 7 C atoms, an alkylmethylothio with the alkyl having from 1 to 7 C atoms, cyano, difluoromethylthio, a substituted phenyl-, and phenylalkyl with the alkyl having from 1 to 8 C atoms;

$R_{IV-III}$  is a  $C_2$ - $C_5$  alkyl, a  $C_2$  or  $C_3$  alkyloxy, allyloxy, phenoxy, phenylthio, a cycloalkyl having from 5 to 7 C atoms, optionally substituted at position 1 by a  $C_1$ - $C_2$  alkyl;

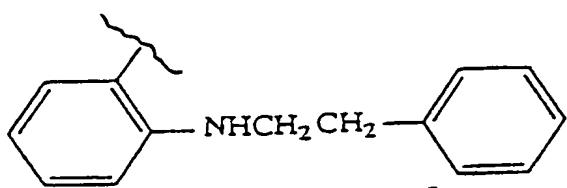
Group IV A)



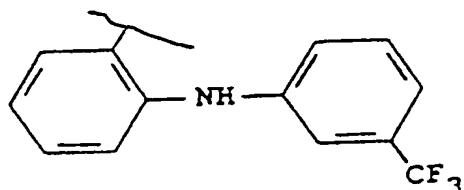
where  $A = RCOO$ ,  $t = 1$ ,

Group V A) chosen from the following:

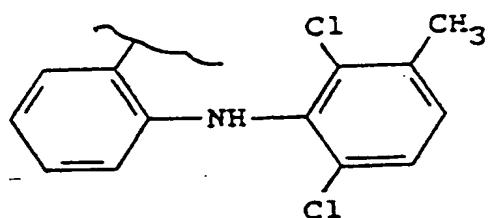
Subgroup V Aa) residues chosen from the following, where t = 1



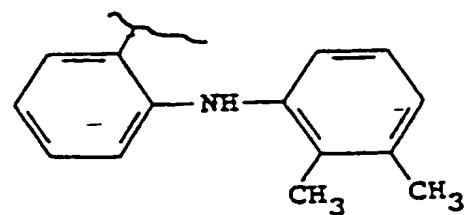
(V Aa1)



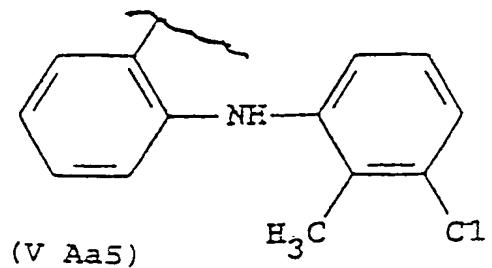
(V Aa2)



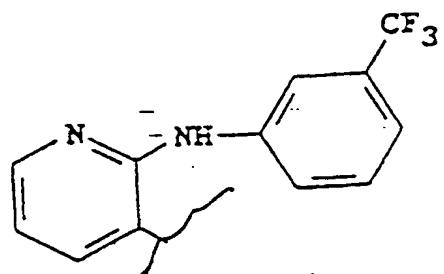
(V Aa3)



(V Aa4)

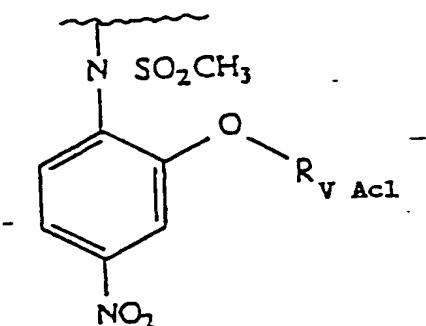


subgroup V Ab), residue, where t = 1:

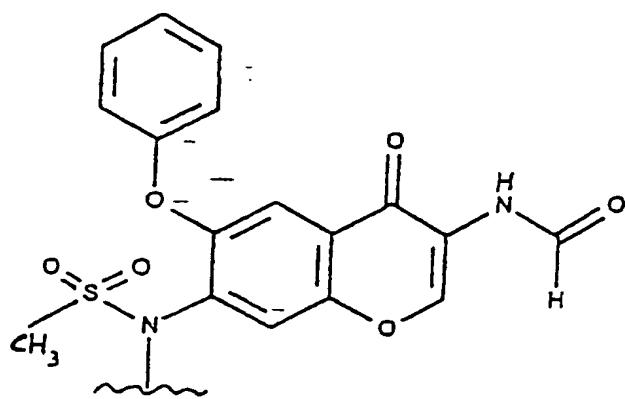


(V Ab1)

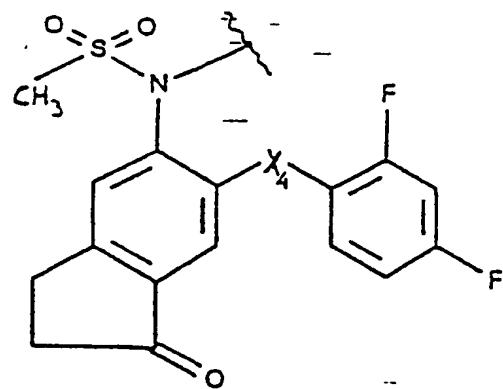
subgroup V Ac), residue, where t = 0 and R is as follows:



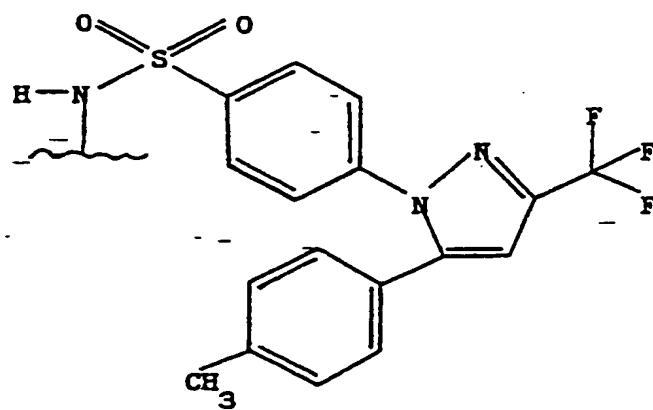
(V Ac1)



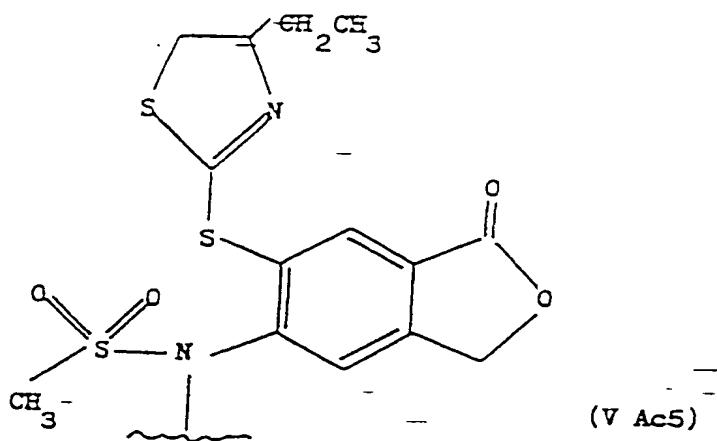
(V Ac2)



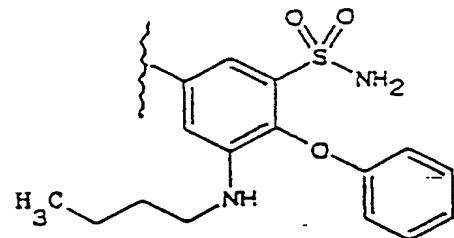
(V Ac3)



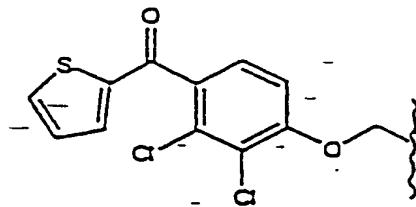
(V Ac4)



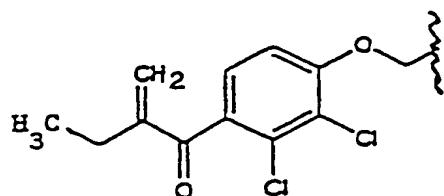
subgroup V Ad) residues, where t = 1 and R is as follows:



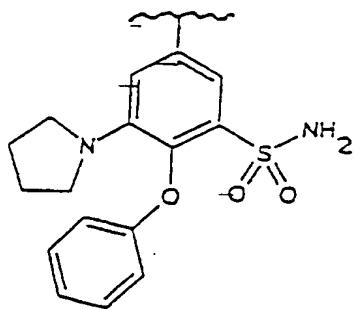
(V Ad1)



(V Ad2)

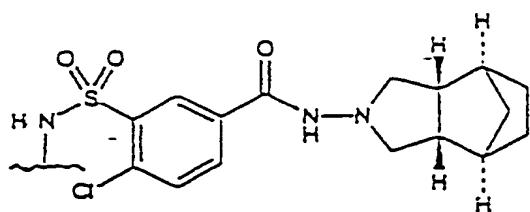


(V Ad3)

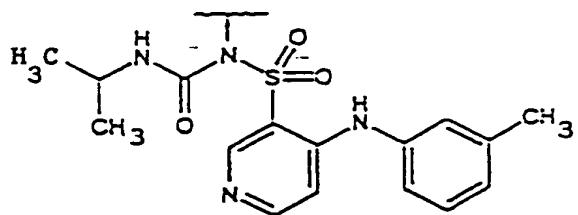


(V Ad4)

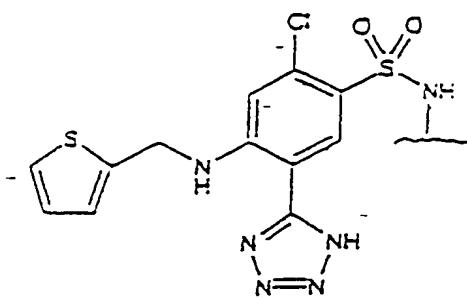
subgroup Ae) residues, where t = 1 and R is as follows:



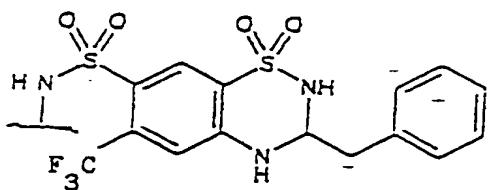
(V Ae1)



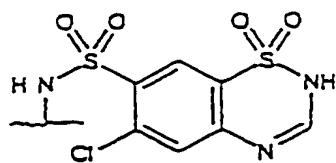
(V Ae2)



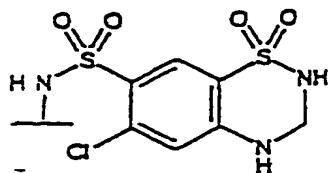
(V Ae3)



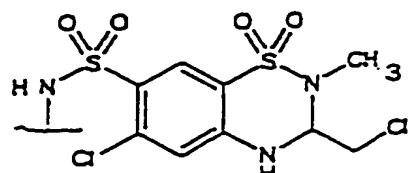
(V Ae4)



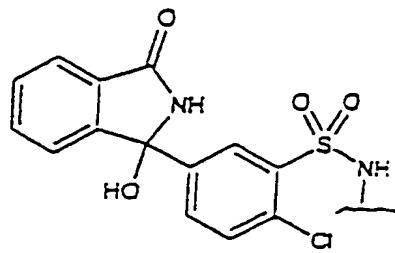
(V Ae5)



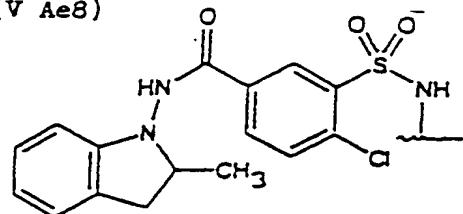
(V Ae6)



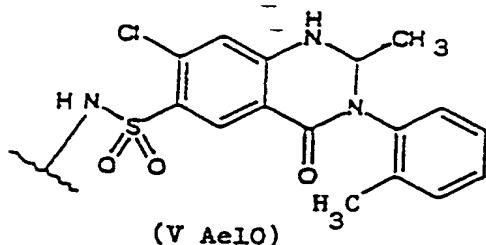
(V Ae7)



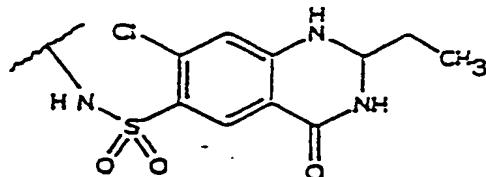
(V Ae8)



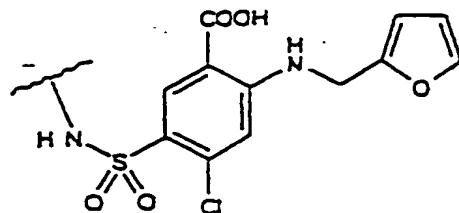
(V Ae9)



(V Ae10)



(V Ae11)



(V Ae12)

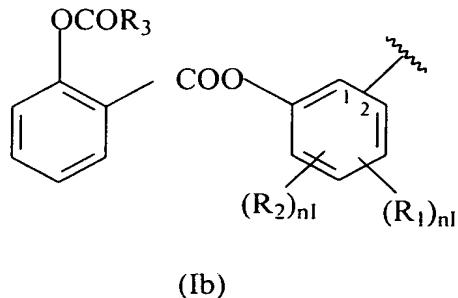
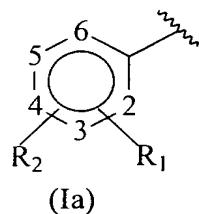
wherein:

in compounds (V Ac1) Rvac1 attached to the oxygen atom in position 2 of the benzene ring of the N - (4-nitro-phenyl)methansulphonamide can be phenyl or cyclohexane, when Rvac1 is phenyl the residue is that of nimesulfide;

in compounds ( V Ac2) the residue of 3-formylamino-7-methylsulfonylamino-6-phenoxy-4H-1-bezopyran-4-one has been shown;

in compounds (V Ac3) the atom X<sub>4</sub> that links the radical 2,4-difluorothiophenyl to position 6 of the indanone ring of the residue 5-methanesulfonamido-1-indanone can be sulfur or oxygen;

Group VIA), where t = 1,



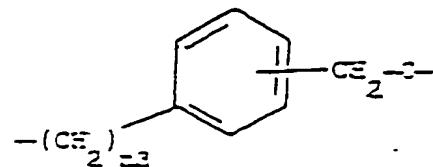
where:

R<sub>1</sub> is group OCOR<sub>3</sub>; where R<sub>3</sub> is methyl, ethyl or a linear or branched C<sub>3</sub>-C<sub>5</sub> alkyl, or the residue of a single-ring heterocycle having 5 or 6 atoms which can be aromatic, partially or totally hydrogenated, containing one or more heteratoms independently chosen from O, N and S; R<sub>2</sub> is hydrogen, hydroxy, halogen, a linear or whenever possible branched alkyl having from 1 to 4 C atoms, a linear or whenever possible branched alcoxyl having from 1 to 4 C atoms; a linear or whenever possible branched perfluoroalkyl having from 1 to 4 C atoms, for example trifluoromethyl, nitro, amino, mono- or di (C<sub>1-4</sub>) alkylamino; R<sub>1</sub> and R<sub>2</sub> jointly are the dioxymethylene group, with the proviso that when X = NH, then X<sub>1</sub> is ethylene and R<sub>2</sub> = H; R<sub>1</sub> cannot be OCOR<sub>3</sub> at position 2 when R<sub>3</sub> is methyl; n<sub>1</sub> being an integer from 0 to 1;

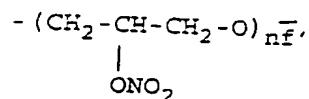
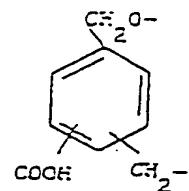
X<sub>1</sub> in formula A-X<sub>1</sub>-NO<sub>2</sub> is a bivalent connecting bridge chosen from the following:

- YO

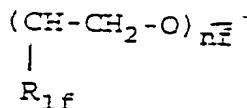
where Y is a linear or branched C<sub>1</sub>-C<sub>20</sub> alkylene, or an optionally substituted cycloalkylene having from 5 to 7 carbon atoms;



where n<sub>3</sub> is an integer from 0 to 3;



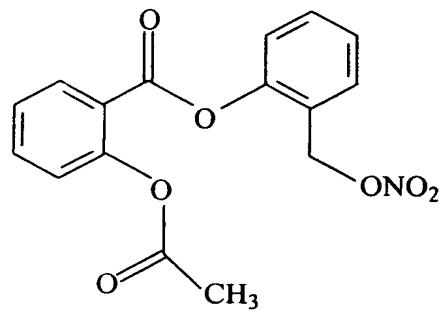
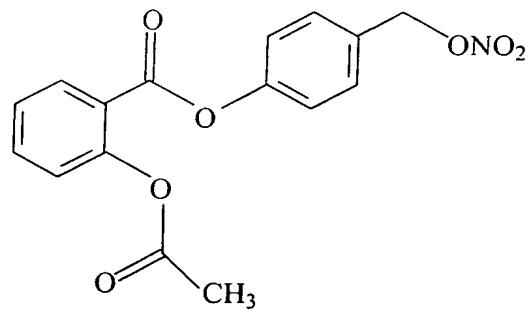
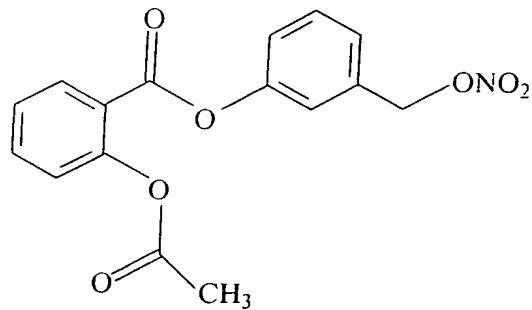
where  $nf'$  is an integer from 1 to 6;

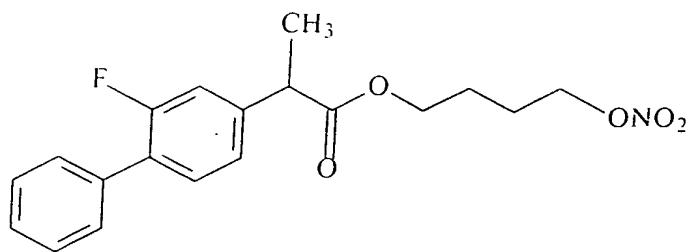


where  $\text{R}_{1f} = \text{H}$  or  $\text{CH}_3$  and  $nf$  is an integer from 1 to 6.

2. The method according to Claim 1, in which R is selected from groups IIA) and VIA).
3. The method according to Claim 1, in which R is as defined by group IIA), wherein  $\text{R}_{3a} = \text{H}$ ,  $\text{R}_{2a} = \text{CH}_3$ ,  $\text{R}_{1a}$  is the formula (IX) and  $X = \text{O}$ .
4. The method according to Claim 1, in which R is as defined by group VIA) (formula Ia), wherein  $\text{R}_1$  is the group  $\text{OCOR}_3$  with  $\text{R}_3 = \text{CH}_3$ ,  $\text{R}_2 = \text{H}$  and  $X = \text{O}$ ;  $\text{R}_1$  is in the ortho position to CO.

5. A method for treatment of gastrointestinal tumors, according to Claim 1, by administering compounds having the following formulas:





6. Use of compounds from groups IA) to VIA) for the treatment of gastrointestinal tumors.